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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/660,444	09/12/2000	Keiichi Iwamura	35.C14834	6601

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EXAMINER

EDWARDS, PATRICK L

ART UNIT PAPER NUMBER

2621

DATE MAILED: 04/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/660,444

Applicant(s)

IWAMURA, KEIICHI

Examiner

Patrick L Edwards

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 7-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 7-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submissions filed on 12-21-2004 and 1-21-2005 have been entered.

Response to Arguments

2. The applicant's arguments, filed on 12-21-2004, have been fully considered. A response to these arguments is provided below.

35 USC 112, Second Paragraph Rejections

Summary of Argument:

Claims 1-4, 7-9, 13-15, 17, and 19 were previously rejected under § 112(2) as being indefinite. Applicant submits that the amendment to the claims has corrected all the previous 112(2) issues.

Examiner's Response:

The examiner agrees. The previous rejection is hereby withdrawn. Applicant's amendment, however, has caused one new 112(2) problem which will be given in the below rejection.

Prior Art Rejections

Summary of Argument:

Applicant has amended the claims and argues that the additional limitations have overcome the prior art rejections from the previous office action.

Examiner's Response:

The previous rejections are now moot. A new grounds for rejection is provided below.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 3 and 4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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With regard to claim 3, the claim recites that the compressing means comprises second embedding means. It is not clear how or why the second embedding means would be a part of the compressing means, and not a separate entity in and of itself. The examiner suspects that this claim simply requires re-wording. However, if the claim is worded correctly, then appropriate clarification and explanation is respectfully requested. For further examination purposes this claim will be interpreted as the same "second embedding means" which is described in claim 13, since it appears that the claim is mis-worded as currently written.

Claim 4 is rejected because it depends from an indefinite claim.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-4, and 8-22 are rejected under 35 U.S.C. 102(e) as being anticipated by Adler et al (USPN 6,275,599).

With respect to claim 1, which is representative of claim 8, Adler discloses inputting an original image which is constructed of a plurality of bit planes (Adler col. 3 line 63 – col. 4 line 1).

Adler further discloses compressing at least a first predetermined bit plane of the original image data to form compression data (Adler col. 6 lines 32-67: The reference describes computing a 'reduced data set' (i.e. compression data)).

Adler further discloses embedding the compression data into the first predetermined bit plane of the original image (Adler col. 7 lines 28-37: The reference describes embedding this compression data back into the original image. The reference further discloses that this data is embedded back into the original image at original predetermined bit plane (Adler col. 4 lines 1-3)).

With respect to claim 2, the first predetermined bit plane from the Adler reference (as discussed immediately above) is a lower bit plane (Adler col. 4 lines 1-3: The reference describes "least significant numbers" (i.e. lower bit plane)).

With respect to claim 3, Adler discloses embedding additional information into the second predetermined bit plane or the original image (Adler col. 7 lines 17-27: The reference describes embedding additional

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information (i.e. owners name, time, etc.) into a second predetermined bit plane of the original image (i.e. the 104 spare bits).

With respect to claim 4, Adler discloses the possibility that the additional information can be embedded in a most significant number (i.e. upper bit plane) (Adler col. 4 lines 3-5).

With respect to claim 21, Adler discloses an invisible watermark (Adler col. 4 lines 1-2).

With respect to claim 10, which is representative of claim 16, all of the limitations except one have been discussed above. The additional limitation that the compression data is not just a compression of a first predetermined bit plane, but rather is a compression of both a first predetermined bit plane and a second predetermined bit plane is further disclosed in Adler. As was stated above, Adler discloses that the embedded watermark is a modification of all or part of the least significant numbers (Adler col. 4 lines 1-3). Since this term is pluralized, we can conclude that the compression is performed on at least two predetermined bit planes.

With respect to claim 22, Adler discloses both an invisible watermark and an "image dependent" (i.e. visible) watermark (Adler col. 4 lines 1-7).

With respect to claim 13, which is representative of claim 17, all of the limitations of the claim have been discussed above except for the additional limitation of "encrypting data showing a result of the compression in said compressing means." Adler discloses this encryption step (Adler col. 4 lines 5-7).

With respect to claims 11 and 14, Adler discloses holding information representing the first predetermined bit plane, as key information (Adler col. 5 lines 18-23: The references describes the key information. It follows that the reference inherently discloses a holding means for holding this key information, since it inherently has to be stored (held) somewhere.

With respect to claim 12, 15, and 20, Adler discloses reversible compression (Adler col. 5 lines 50-59).

With respect to claims 9, 18, and 19, Adler inherently discloses a memory for storing a computer executable program which performs a method (Adler col. 1 line 39: The references describes the field of endeavour as "computer imaging". Thus, the reference inherently discloses storing a program for executing the steps of a method on a computer processor.)

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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8. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Adler as applied to claim 1 above, and further in view of Dumoulin (USPN 6,571,020). The arguments as to the relevance of Adler as applied above are incorporated herein.

With respect to claim 7, Adler discloses a color image as an original image (Adler col. 2 line 49) but fails to expressly disclose that this color image is an RGB image. Dumoulin, however, discloses an RGB image (Dumoulin col. 6 lines 13-23). It would have been obvious to one reasonably skilled in the art at the time of the invention to modify Adler to include RGB images as taught by Dumoulin. Such a modification would have allowed for the use of an image color format which is displayed on most computer monitors.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Kawaguchi et al. (USPN 6,473,516) discloses embedding data at predetermined bit planes of an image.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick L Edwards whose telephone number is (703) 305-6301. The examiner can normally be reached on 8:30am - 5:00pm M-F.

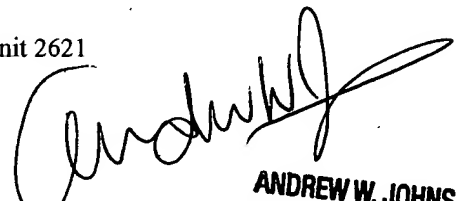
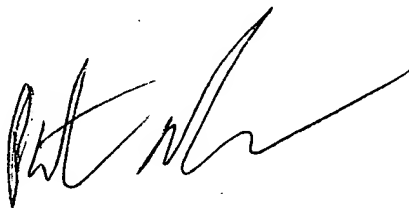
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Boudreau can be reached on (703) 305-4706. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patrick L Edwards

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ANDREW W. JOHNS
PRIMARY EXAMINER